To play Space Invaders in your own home, I am afraid it will cost £ X,000 for the arcade game, but for those with more modest incomes an alternative is available.

THE INTRUDERS

This program brings the popular and addictive arcade/pub. game into the home of any owner of an expanded NASCOM.

For the benefit of the unenlightened, there follows a brief description of the game which has attained a cult following in many countries.

The game can be played by 1 or 2 people, the object being to gain the highest score possible by destroying the Intruders before they destroy you. You and your optional opponent take it in turns to command a ground laser base which has the ability to move and fire missiles at the approaching Intruders. Your score increases with each Intruder destroyed and in addition with each UFO hit, as it occasionally crosses the top of the screen. The Intruders, however, can fire bombs at the laser base and when hit, it is the opponents turn to take command. Each player gets 3 laser bases (plays) but additional plays are granted for scoring 1500 and 4500.

When the game is started the screen consists of 55 Intruders arranged in 5 rows of 11. The first player's laser base is placed at the bottom left of the screen and there are 4 defences behind which the laser base may shelter. The player can move his laser base left or right along the bottom line of the screen by pressing one of two keys. The laser base continues to move while the key is held down and stops when it is released. To fire a missile up the screen another key is pressed.

The Intruders start at the top of the screen and slowly move from the left to the right of the screen and back again dropping a level each time a screen edge is hit. The Intruders are gradually getting closer and closer to you and therefore it is getting harder and harder to out manouvre their falling bombs. Also, the Intruders start moving slowly but with each one destroyed by the laser base they move slightly faster until, when there is only one left, it is moving very fast and so is difficult to destroy. If an Intruder should reach the bottom of the screen that player is totally destroyed and forfeits any plays he may have remaining but his opponent continues with the rest of his plays until he is destroyed. When a player is hit his screen is saved so that it may be restored when it is his turn again.

The Intruders know the position of the laser base at all times so they can fire their bombs accurately, however, they also fire occasional random bombs to allow them to 'chip away' at your defences. Any Intruder bomb or ground missile hitting the defences blasts a small hole in them and when a large enough hole has been made the bombs and missiles can pass through the defences.

Whenever a screen of Intruders (55) are destroyed, a new screen is created but this time with the Intruders positioned one level lower. In this way the game gets progressively harder with each screen of Intruders destroyed until, at a certain low level, the Intruders start moving up the screen with each screen destroyed.

The mother ship UFO which occasionally traverses the top of the screen can move in either direction and when hit gives a random score of between 50 and 300. There are 3 different types of Intruders worth 10, 20 and 30 points. The top line of the screen is reserved for each player's score and a count of the number of turns remaining for each player. Also on the top line is the highest score attained since the system was started, at start up time this score is zero.

That completes the description of the game but it should be emphasised that a written description does not do the game justice. It should be seen and experienced!

Special Features

Within the game are a number of options which may be selected by the user.

1. Graphics/Non-Graphics

    When the game is first started the user is asked if he would like graphics or not. This is because the program is written to optionally use the William Stuart colour graphics system. Any owner of this add on unit will get a slightly better screen display due to the incorporation of colour graphics. The majority of users will not have this add on unit so by replying 'N' to the graphics prompt will get the normal NASCOM display.

2. Fire Key

    Some keys are easier to hit than others so it is possible to select one's own fire key. Also, after prolonged use (as tends to happen with this addictive game) it is wise to select a different key to prevent over use of one key.

3. Practice

    The last few Intruders can be difficult to destroy, so to allow the user to gain experience a practice mode is available which puts 4 fast moving Intruders on the screen.

4. Variable Skill

    Three levels of play are available, novice, good and expert. Novice is for the beginner, good for the normal player and expert for the very experienced.

5. Pause

    During the game a pause facility is available by typing the letter 'P', the game may be continued by typing any key. This facility is incorporated to allow the player to answer the door, telephone, calls of nature, wife etc., without letting those nasty Intruders destroy you. It is not intended as a rest facility while trying to attain that ultimate high score.

6. High Score

    The high score, as indicated on the top line of the screen, shows the highest score attained under the current level of skill. When a different level of skill is selected (by typing N, G or E for Novice, Good or Expert) the high score attained at that level is used.

All these options are available within the same program, some being selected when the game is first started and others at the end of each program.

The program resides in 3.25K starting at address 1000H and requires an additional 2.25K to run in so the total memory requirement is 5.5K and hence the program will run on any normal expanded NASCOM. The program runs on a NASCOM 1 under any monitor, ie. T2, B-BUG, T4 or NAS-SYS, the monitor selection being transparent to the user. The program will also work on a NASCOM 2 with the speed link option set to 2MHz and no WAIT state selected. The NASCOM 2 normally runs at 4MHz with a WAIT state.

The program was initially developed in machine code but when more memory was purchased it was re-written using ZEAP. The source code, which is virtually uncommented, now occupies 24K.

The program is supplied as object code on a high quality tape, one recording on each side. The program is recorded in WRITE format and preceded by a short fast loader program in LOAD format which when executed will allow a T2 owner to load the program.

This extensive full feature game is supplied on tape with object listing and instructions for £10.00 including postage and packing and VAT. Please state whether the tape is for a NASCOM 1 or 2 since the cassette interface speed differs for the two machines.

The game is great entertainment value and is found to captivate people of all ages.

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1000 06 0D 3A 00 04 FE 22 28 02 06 1F 78 32 0A 1E AF
1010 32 05 1E 21 00 00 22 15 1E 22 17 1E 22 19 1E 22
1020 1B 1E CD 36 1B 21 CE 08 CD 3A 1D EF 45 6E 74 65
1030 72 20 66 69 72 65 20 6B 65 79 20 28 6E 6F 74 20
1040 41 2C 58 2C 43 2C 20 6F 72 20 4E 45 57 4C 49 4E
1050 45 29 20 00 CD 5C 1D FE 58 28 F9 FE 41 28 F5 FE
1060 43 28 F1 47 3A 0A 1E B8 28 EA 78 32 09 1E CD 69
1070 1D 2A 15 1E 3A 04 1E FE 4E 20 05 22 17 1E 18 0C
1080 FE 47 20 05 22 19 1E 18 03 22 1B 1E 21 4E 09 CD
1090 3A 1D EF 50 72 61 63 74 69 63 65 20 59 2F 4E 20
10A0 3F 20 00 CD 5C 1D CD 69 1D FE 59 20 05 3E 50 32
10B0 05 1E 21 CE 09 CD 3A 1D EF 54 79 70 65 20 4E 2C
10C0 47 20 6F 72 20 45 20 66 6F 72 20 73 6B 69 6C 6C
10D0 00 CD 49 1D 21 4E 0A CD 3A 1D EF 20 20 20 20 20
10E0 20 20 20 4E 20 3D 20 4E 6F 76 69 63 65 00 CD 49
10F0 1D 21 8E 0A CD 3A 1D EF 20 20 20 20 20 20 20 20
1100 47 20 3D 20 47 6F 6F 64 00 CD 49 1D 21 CE 0A CD
1110 3A 1D EF 20 20 20 20 20 20 20 45 20 3D 20 45
1120 78 70 65 72 74 00 CD 49 1D CD 5C 1D 32 04 1E FE
1130 4E 20 1E 2A 17 1E 3E 08 32 AE 1D 3E 0E 32 AF 1D
1140 3E 28 32 B0 1D 3E 50 32 B1 1D 3E 06 32 AD 1D 18
1150 43 FE 47 20 1E 2A 19 1E 3E 05 32 AE 1D 3E 05 32
1160 AF 1D 3E 30 32 B0 1D 3E 38 32 B1 1D 3E 06 32 AD
1170 1D 18 21 FE 45 C2 29 11 2A 1B 1E 3E 03 32 AE 1D
1180 3E 02 32 AF 1D 3E 46 32 B0 1D 3E 14 32 B1 1D 3E
1190 06 32 AD 1D 22 15 1E CD 2C 1D 21 D4 09 CD 3A 1D
11A0 EF 4E 55 4D 42 45 52 20 4F 46 20 20 50 4C 41 59
11B0 45 52 53 20 31 2F 32 20 3F 00 CD 49 1D 3E 31 32
11C0 02 1E 32 03 1E CD 5C 1D FE 31 28 05 3E 32 32 02
11D0 1E CD 2C 1D 11 CD 0B 21 B2 1D 01 27 00 ED B0 3A
11E0 02 1E FE 32 28 0B 11 EA 0B 21 D9 1D 01 0A 00 ED
11F0 B0 CD 49 1D 21 1C 08 CD 3A 1D EF 50 4C 41 59 45
1200 52 20 31 00 CD 49 1D 2A 15 1E DD 21 E5 0B CD 82
1210 1A 21 58 08 22 0B 1E 22 0D 1E CD 42 18 11 F9 22
1220 21 4A 08 01 31 03 ED B0 3E 03 32 F8 1D 32 FA 1D
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1270 22 0F 1E 22 11 1E 22 13 1E 2B 22 1D 1E 3E 03 32
1280 FC 1D 3E 01 32 E6 1D 32 EB 1D 32 F0 1D CD B9 1C
1290 21 00 00 22 1F 1E 22 21 1E 22 23 1E 3A AE 1D 32
12A0 F6 1D 3A AD 1D 32 FD 1D 3E 02 32 F7 1D 3E 06 32
12B0 FE 1D 3E FE 32 7A 0B 32 7B 0B 32 48 08 32 49 08
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12E0 FB 1D 3D F5 CC B8 16 F1 28 14 32 FB 1D 3A E5 1D
12F0 4F 06 0A FE 0B 30 01 47 79 CD 7D 1D 10 FA CD 76
1300 17 3A FC 1D 3D CC DE 17 32 FC 1D 3A AF 1D 47 3A
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1320 19 3D CC 24 18 CD 92 1B C3 C8 12 31 00 10 3A FA
1330 1D 3D 32 FA 1D 47 3A 03 1E DD 21 D3 0B 21 F8 1D
1340 11 F9 1D FE 31 28 05 DD 21 F3 0B EB 70 78 E6 07
1350 47 C6 30 DD 77 00 1A E6 07 B0 C2 33 14 CD AA 1B
1360 21 1C 08 CD 3A 1D EF 20 47 41 4D 45 20 4F 56 45
1370 52 20 00 CD 49 1D 2A 13 1E 3A 03 1E FE 31 20 05
1380 22 0F 1E 18 03 22 11 1E 21 4A 08 11 4B 08 01 80
1390 01 36 20 ED B0 21 96 08 CD 3A 1D EF 54 79 70 65
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13B0 1D 21 D6 08 CD 3A 1D EF 54 79 70 65 20 43 20 74
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1790  3A 02 0C FE 10 20 01 03 ED 43 23 1E F1 FE 50 20
17A0  04 CD 5C 1D C9 21 09 1E BE C0 2A 1F 1E 7C B7 C0
17B0  2A 25 1E 01 C0 FF 09 3E 21 CD B9 19 28 1A 06 21
17C0  FE 20 28 0E FE 2A 28 0A 06 2A FE 19 C4 EF 19 C4
17D0  A7 1A 70 78 FE 21 28 02 26 00 22 1F 1E C9 ED 4B
17E0  23 1E 79 B7 28 3B 2A 25 1E 09 2B 7D FE 89 28 31
17F0  23 23 7D FE BA 28 2A 2B B7 ED 42 B7 ED 42 36 20
1800  09 3A F3 1D 57 3A F5 1D 5F 78 B7 28 03 7A 53 5F
1810  72 09 3A F4 1D 77 22 25 1E 09 7E FE 20 C2 2B 13
1820  73 3E 03 C9 3E 08 4F CB 39 CD 12 19 91 4F 06 00
1830  F2 34 18 05 2A 25 1E 09 7D FE BA C8 FE 89 C4 27
1840  19 C9 E5 21 CA 0A 1E 20 3A 00 1E 57 0E 04 06 04
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1870  06 06 72 23 10 FC 06 03 73 23 10 FC 0D 20 EB 21
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18D0  77 02 DD 77 04 DD 77 06 C9 E5 06 0B 77 23 36 20
18E0  23 10 F9 E1 09 C9 21 8A 08 01 31 03 ED B1 E0 2B
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1920  30 FD 80 3C E1 C1 C9 01 40 00 11 4A 08 B7 ED 42
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1940  20 28 17 FE 19 28 13 FE 2A 28 0F 06 2A FE 21 28
1950  09 3E 19 CD B9 19 C8 C3 2B 13 70 C9 26 00 22 1F
1960  1E 2A 21 1E ED 4B 1D 1E 78 B7 28 02 2B 2B 36 20
1970  3E 04 CD 12 19 3D 28 03 C6 30 77 23 01 00 00 B7
1980  28 16 01 64 00 FE 31 28 0F 01 C8 00 FE 32 28 08
1990  01 2C 01 36 30 AF 18 15 B7 3E 32 36 35 28 0E 3E
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19B0  6F 26 00 09 E5 C1 C3 04 1A E5 C5 47 4E 21 85 1D
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1A00  F1 C1 E1 C9 D5 E5 F5 2A 13 1E E5 3A 03 1E DD 21
1A10  CD 0B FE 31 28 04 DD 21 ED 0B B7 09 30 03 21 FF
1A20  FF 22 13 1E CD 82 1A 2A 13 1E 11 DC 05 B7 ED 52
1A30  19 38 33 E1 B7 ED 52 19 38 14 E5 11 94 11 2A 13
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1A70  52 19 38 0A 22 15 1E DD 21 E5 0B CD 82 1A F1 E1
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1AC0  3E 03 32 FC 1D 3E 01 32 E4 1D 3A 03 1E FE 31 2A
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1AF0  09 FE 47 28 03 11 98 09 F1 B7 ED 52 19 01 C0 FF
1B00  28 04 ED 4B E7 1D ED 43 E7 1D 09 FE 31 28 05 22
1B10  0D 1E 18 03 22 0B 1E CD F5 18 E5 21 0A 08 11 0A
1B20  08 13 36 20 01 B0 03 ED B0 E1 CD 42 18 E1 3E 01
1B30  32 E6 1D C3 90 12 CD 2C 1D 21 4E 08 CD 3A 1D EF
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1B60 1D 3E 0E 32 F4 1D 3E 7F 32 00 1E 3E 25 32 01 1E
1B70 C9 3E A7 32 F3 1D 3E AF 32 F4 1D 3E AB 32 F5 1D
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1B90 04 C9 3E 19 CD 12 19 3D C0 3E 31 CD 12 19 3D 4F
1BA0 06 00 21 89 0B 09 CD 27 19 C9 21 3A 08 11 30 00
1BB0 06 0F 3E FF 0E 10 77 23 0D 20 FB 19 10 F6 3E 02
1BC0 CD 12 19 3C 32 08 1E ED 5B 25 1E DD 2A 25 1E DD
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1C80 DD 7E 05 77 DD 7E 00 DD 77 00 01 06 00 DD 09 C1
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1CC0 CD 0B FE 31 28 03 21 ED 0B 3E 18 E5 01 00 00 08
1CD0 CD 04 1A FD 21 1C 08 FD 36 00 50 FD 36 01 4C FD
1CE0 36 02 41 FD 36 03 59 FD 36 04 45 FD 36 05 52 FD
1CF0 36 06 20 FD 72 07 06 10 AF CD 7D 1D 10 FA 06 05
1D00 DD E1 DD E5 DD 73 00 DD 23 10 F9 FD 21 1C 08 06
1D10 08 FD 73 00 FD 23 10 F9 06 10 AF CD 7D 1D 10 FA
1D20 08 3D 20 A8 0E 00 CD 04 1A DD E1 C9 21 00 08 36
1D30 20 11 01 08 01 FF 03 ED B0 C9 3A 00 04 FE 22 28
1D40 04 22 18 0C C9 22 29 0C C9 3A 00 04 FE 22 28 06
1D50 2A 18 0C 36 20 C9 2A 29 0C 36 20 C9 3A 00 04 FE
1D60 22 28 04 CD 3E 00 C9 CF C9 F5 3A 00 04 FE 22 28
1D70 06 2A 18 0C F1 77 C9 2A 29 0C F1 77 C9 F5 F1 F5
1D80 F1 3D 20 F9 C9 7F 25 25 20 00 00 07 1E 18 14 0F
1D90 0A 00 00 10 27 E8 03 64 00 0A 00 01 00 DF D3 D3
1DA0 20 DC 20 00 00 DF DC D3 20 DC 20 00 00 06 05 05
1DB0 30 38 30 30 30 30 30 2F 33 20 20 20 48 49 47 48
1DC0 45 53 54 20 53 43 4F 52 45 20 20 20 20 20 20 20
1DD0 20 20 30 30 30 30 30 2F 33 20 20 20 20 20 20 20
1DE0 20 20 20 00 00 00 00 00 00 00 00 00 00 00 00 00
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Fast loader program for T2 users.

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0C50   31 00 10 CD 51 00 06 04 CD 3E 00 FE FF 20 F7 10
0C60   F7 CD 3E 00 6F CD 3E 00 67 CD 3E 00 5F CD 3E 00
0C70   57 0E 00 CD 32 02 EB CD 32 02 EB CD 3E 00 B9 20
0C80   12 43 0E 00 CD 3E 00 77 81 4F 23 10 F7 CD 3E 00
0C90   B9 28 07 EF 45 72 72 6F 72 00 CD 40 02 AF BA 20
0CA0   B5 CD 51 00 31 33 0C C3 86 02 00 00 00 00 00 00
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